

This weekly bulletin provides updates on threats monitored by ECDC.

I. Executive summary

EU Threats

Influenza - Multistate (Europe) - Monitoring 2013-2014 season

Opening date: 4 October 2013

Latest update: 30 January 2014

Following the 2009 pandemic, influenza transmission in Europe has returned to its seasonal epidemic pattern, with peak activity during winter months. ECDC monitors influenza activity in Europe during the winter seasons and publishes the results on its website in the Weekly Influenza Surveillance Overview.

→Update of the week

In week 6 2014, the proportion of sentinel specimens testing positive for influenza virus decreased with signs of declining influenza activity in some countries. Influenza A(H1)pdm09 and A(H3) viruses are co-circulating in outpatient settings. However, A(H1)pdm09 predominates among hospitalised cases.

Non EU Threats

Winter Olympic and Paralympic Games 2014

Opening date: 27 January 2014

Latest update: 13 February 2014

The Winter Olympics and Paralympic Games are being held from 7 to 21 February and from 7 to 16 March 2014 (Paralympics) in Sochi, Russia. The Russian public health authorities (Rospotrebnadzor) have strengthened surveillance for these mass gathering events. As in previous similar events, ECDC has enhanced its epidemic intelligence activities in relation with the event.

→Update of the week

During the past week, no communicable disease events were detected as potential threats to the 2014 Winter Olympic Games.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 13 February 2014

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, the outbreak has affected 14 Chinese provinces and two municipalities. Since March 2013, 339 cases have been reported, including 66 deaths. Most cases have been unlinked and sporadic zoonotic transmission from poultry to humans is the most likely explanation for the outbreak. Sustained person-to-person transmission has not been documented. Since October 2013, 203 cases have been reported, the majority in previously affected provinces or in patients who visited such provinces prior to illness. However, two cases have been reported in newly affected provinces in China (Guizhou and Guangxi) during the second wave of the outbreak.

→Update of the week

Between 8 and 13 February, 23 new cases of influenza A(H7N9) infection have been reported, twenty-two cases in China: Zhejiang (eight), Guangdong (six), Hunan (three), Anhui (two), Fujian (one), Jiangsu (one), Hong Kong (1) and one case in Malaysia imported from China. The case reported by Malaysia on 12 February is the first human case of influenza A (H7N9) detected outside China. The case is a 67-year-old Chinese citizen from Guangdong province who was visiting Malaysia and developed symptoms before travelling.

Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005

Latest update: 13 February 2014

The influenza A(H5N1) virus, commonly known as bird flu, is fatal in about 60% of human infections. Sporadic cases continue to be reported, usually after contact with sick or dead poultry from certain Asian and African countries. No human cases have been reported from Europe.

→Update of the week

During the past month, three new human cases of influenza A (H5N1) infection have been reported worldwide, two in Cambodia and one in Vietnam.

Chikungunya outbreak - The Caribbean, 2013

Opening date: 9 December 2013

Latest update: 14 February 2014

On 6 December 2013, France reported two laboratory-confirmed autochthonous cases of chikungunya in the French part of the Caribbean island of Saint Martin. Since then, local transmission has been confirmed in the Dutch part of Saint Martin, on Martinique, Saint Barthélemy, Guadeloupe, British Virgin Islands and Dominica. French Guyana, Dominica, Aruba and Anguilla reported imported cases. This is the first documented outbreak of chikungunya with autochthonous transmission in the Americas. As of 14 February 2014, the number of confirmed and probable cases has reached nearly 2 000 in the region. There has been one fatality reported.

→Update of the week

During the past week, 490 new cases of chikungunya have been reported in the Caribbean. New confirmed cases were reported from Saint Martin (FR) (52), Sint Maarten (NL) (5), Martinique (326), Saint Barthélemy (21), Guadeloupe (81). In addition, four additional cases were notified in Anguilla and one additional imported case in French Guyana.

Zika virus infection outbreak - The Pacific - 2013-2014

Opening date: 9 January 2014

Latest update: 6 February 2014

Two French overseas territories are affected by outbreaks of Zika virus (ZIKAV) infection: French Polynesia and New Caledonia. This is the second documented outbreak of ZIKAV infection reported in the Pacific. It is estimated that more than 29 000 cases have sought medical care with Zika-like symptoms in French Polynesia since the beginning of the outbreak in October 2013. There is a simultaneous dengue outbreak in the region. French Polynesia health authorities report a concurrent significant increase in neurological syndromes and autoimmune illnesses. The cause and possible links with Zika or dengue virus infections are being investigated.

→Update of the week

Since the last update more than three hundred new suspected cases have been reported in French Polynesia. The outbreak is subsiding in most affected islands of the territory.

In New Caledonia, 19 new cases have been confirmed during the past week by [health authorities](#), 18 of them were autochthonous cases.

Middle East respiratory syndrome- coronavirus (MERS CoV) - Multistate

Opening date: 24 September 2012

Latest update: 13 February 2014

Since April 2012, 183 laboratory-confirmed cases, including 79 deaths, of acute respiratory disease caused by Middle East respiratory syndrome coronavirus (MERS-CoV), have been reported by national health authorities. To date, all cases have either occurred in the Middle East, have had direct links to a primary case infected in the Middle East, or have returned from the Middle East. The source of the virus remains unknown but the pattern of transmission points towards an animal reservoir in the Middle East, from which humans sporadically become infected through zoonotic transmission. Human-to-human transmission to close contacts and in hospital settings has occurred, but there is no evidence of sustained transmission among humans. MERS-CoV is genetically distinct from the coronavirus that caused the SARS outbreak.

→Update of the week

Since the previous CDTR, no new cases have been confirmed.

Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 13 February 2014

Polio, a crippling and potentially fatal vaccine-preventable disease that mainly affects children, is close to being eradicated as a result of global public health efforts. Polio remains endemic in three countries: Afghanistan, Pakistan and Nigeria, and there have been cases reported from five other countries in 2013: Cameroon, Ethiopia, Kenya, Somalia and Syria.

→Update of the week

Since the previous ECDC update, three new wild poliovirus 1 cases, have been reported to WHO with disease onset in 2014.

II. Detailed reports

Influenza - Multistate (Europe) - Monitoring 2013-2014 season

Opening date: 4 October 2013

Latest update: 30 January 2014

Epidemiological summary

For week 6/2014:

- Of the 27 countries providing clinical data, Greece reported high-intensity influenza activity, eight reported medium intensity and 18 countries reported low-intensity influenza activity;
- Of the 1 495 sentinel specimens tested across 27 countries, 495 (33%) were positive for influenza virus.

Since week 40/2013, six countries have reported 1 941 hospitalised, laboratory-confirmed influenza cases, of which 1 920 (99%) were caused by influenza virus type A infection.

For the second consecutive week, the proportion of sentinel specimens testing positive for influenza virus has decreased with signs of declining influenza activity in some countries. Influenza A(H1)pdm09 and A(H3) viruses are co-circulating in outpatient settings; however, A(H1)pdm09 predominates among hospitalised cases.

Web sources: [WISO](#) | [ECDC Seasonal influenza](#) | [US-CDC health advisory](#) | [CDC Seasonal influenza](#) | [FluWatch, Canada](#) | [FluView, USA](#)

ECDC assessment

The influenza season started in EU/EEA countries in week 2/2014.

Actions

ECDC will continue to produce the weekly influenza surveillance overviews during the northern hemisphere influenza season.

Winter Olympic and Paralympic Games 2014

Opening date: 27 January 2014

Latest update: 13 February 2014

Epidemiological summary

ECDC assessment

The overall level of threat of communicable disease transmission and outbreaks during the 2014 Winter Olympic Games in Sochi is considered low with the exception of influenza, influenza like illness (ILI), and acute diarrhoea and vomiting for which the risk is considered moderate.

Actions

ECDC has enhanced epidemic intelligence activities in collaboration with WHO EURO during this event.

Influenza A(H7N9) - China - Monitoring human cases

Opening date: 31 March 2013

Latest update: 13 February 2014

Epidemiological summary

In March 2013, a novel avian influenza A(H7N9) virus was detected in patients in China. Since then, human cases have continued to be reported, and as of 13 February 2014, there have been 338 laboratory-confirmed cases in China: Zhejiang (132),

4/15

Guangdong (61), Shanghai (42), Jiangsu (39), Fujian (20), Hunan (11), Jiangxi (5), Henan (4), Anhui (6), Beijing (4), Shandong (2), Hebei (1), Guangxi (3), Guizhou (1), Hong Kong (4), Taiwan (2) and one case reported in Malaysia imported from China. In addition, the virus has been detected in one asymptomatic case in Beijing.

Most cases have developed severe respiratory disease. Sixty-six patients have died (case-fatality ratio=19.5%).

Since 15 October 2013, 204 cases have been reported, one case in Malaysia imported from China and 202 cases from China: Zhejiang (86), Guangdong (60), Fujian (15), Jiangsu (12), Shanghai (8), Hunan (8), Beijing (2), Guangxi (3), Guizhou (1), Anhui (2), Taiwan (1) and Hong Kong (5).

Web sources: [Chinese CDC](#) | [WHO](#) | [WHO FAQ page](#) | [ECDC](#) | [Malaysian Ministry of Health](#) |

ECDC assessment

The continued and increasing transmission of a novel reassortant avian influenza virus, capable of causing severe disease in humans in one of the most densely populated areas in the world, is a cause for concern due to the pandemic potential. However, the most likely scenario for China is that this remains a local (but widespread) zoonotic outbreak, in which the virus is transmitted sporadically to humans in close contact with the animal reservoir, similar to the influenza A(H5N1) situation.

The recent fatal case of influenza A(H5N1) imported to Canada and the recent imported case of influenza A(H7N9) in Malaysia provides support to the notion that imported cases of influenza A(H7N9) might also be seen in Europe. However, the risk of the disease spreading to Europe via humans in the near future is still considered low. People in the EU presenting with severe respiratory infection and a history of potential exposure in the outbreak area will require careful investigation in Europe.

The risk of increased transmission of H7N9 viruses between humans is not negligible. European countries should continue to prepare for the eventuality of future pandemics, including one caused by A(H7N9). Preparedness activities should include the precautionary development of early human vaccine candidates and increased monitoring of animal influenzas at the animal-human interface.

Actions

The Chinese health authorities continue to respond to this public health event with enhanced surveillance, epidemiological and laboratory investigation, including scientific research. ECDC is closely monitoring developments.

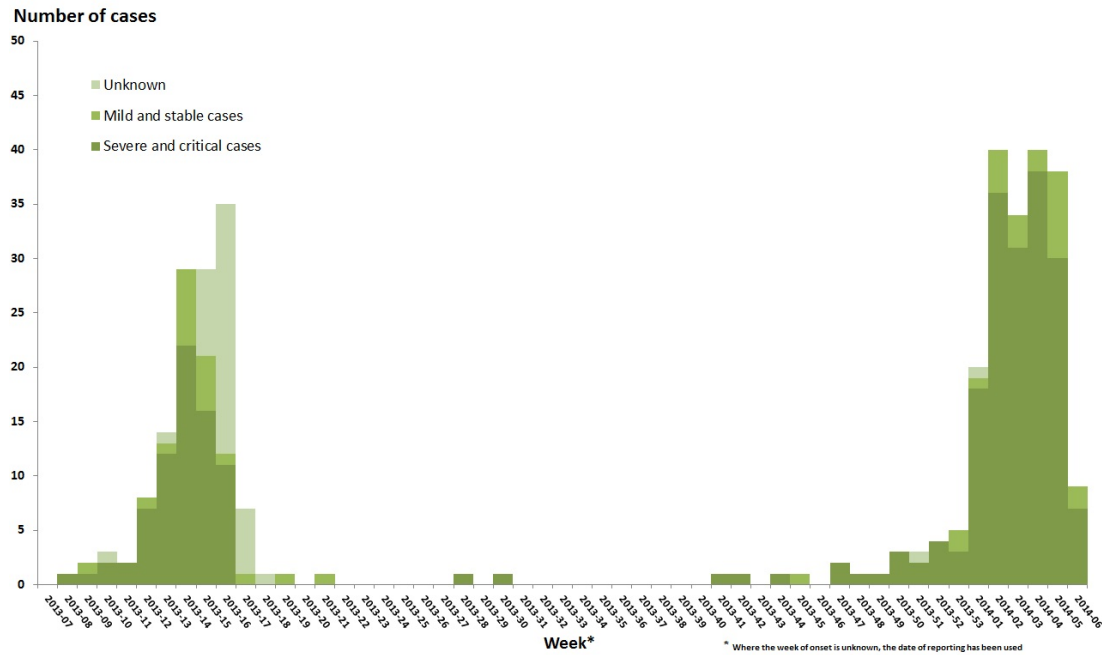
ECDC published an [epidemiological update](#) on 7 February 2014.

ECDC published an updated [Rapid Risk Assessment](#) on 28 January 2014.

ECDC published a guidance document for [Supporting diagnostic preparedness for detection of avian influenza A\(H7N9\) viruses in Europe](#) for laboratories on 24 April 2013.

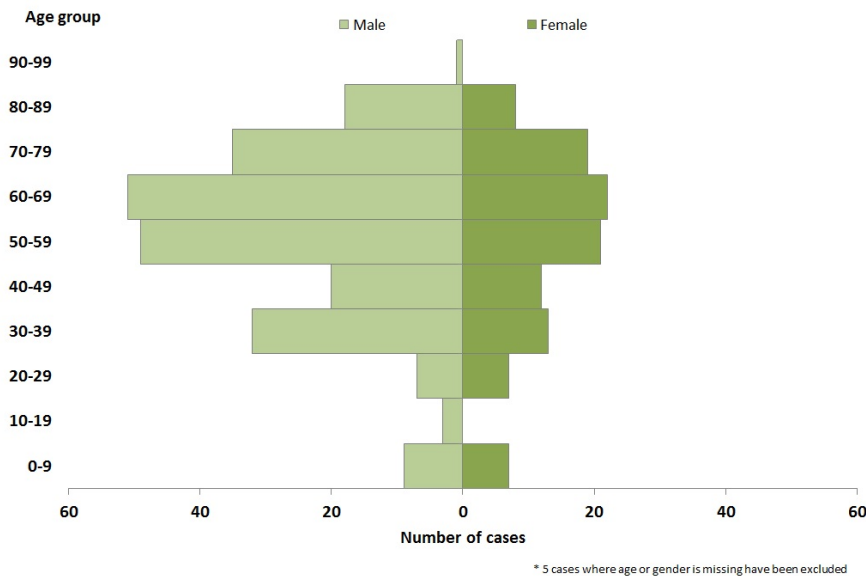
Distribution of confirmed A(H7N9) cases by week of onset and severity, week 14/2013 to 06/2014, China (n=339)

Source: ECDC SRS



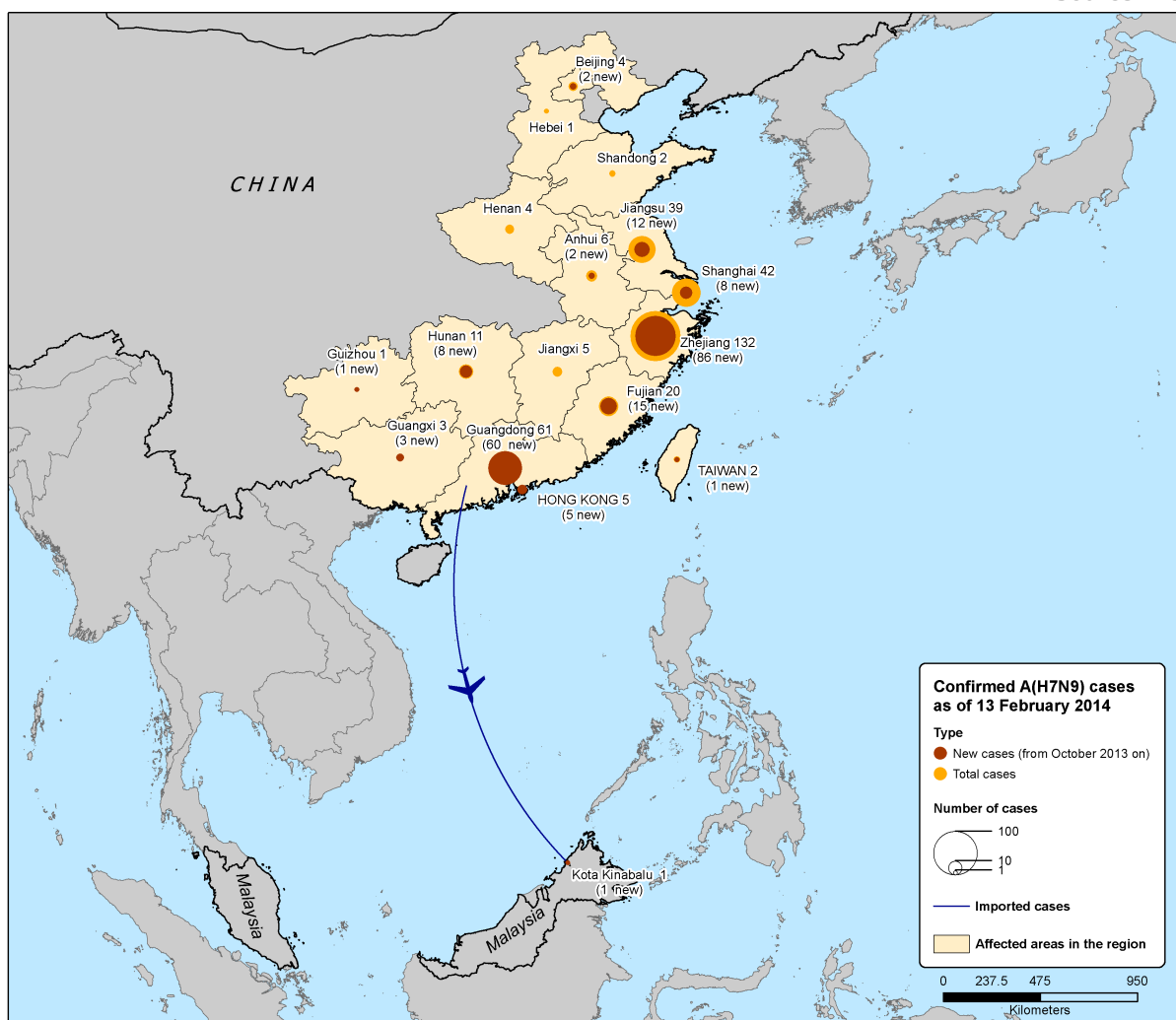
Distribution of confirmed A(H7N9) cases by age and gender, 31/03/2013-06/02/2014, China (n=334*)

Source: ECDC SRS



Distribution of confirmed A(H7N9) cases by place of reporting, week 14/2013 to 06/2014 (n=339)

Source: ECDC SRS



Influenza A(H5N1) - Multistate (world) - Monitoring human cases

Opening date: 15 June 2005

Latest update: 13 February 2014

Epidemiological summary

In the latest monthly update published on 24 January 2014, WHO acknowledged the fatal case of influenza A(H5N1) reported on 8 January 2014 in Canada and provided additional information. The case had an onset of disease on 27 December, when travelling back to Canada, presented with rapidly progressing pneumonia and encephalitis on 1 January 2014 and died on 3 January 2014. This is the first case of infection with H5N1 virus reported in the Americas. Although exposure to the virus most likely happened in Beijing, no clear history of exposure to poultry or poultry-contaminated environments has been reported to date. No further cases have been identified through contact follow-up and investigation around this case.

As of 13 February 2014, forty-two human cases with influenza A(H5N1) virus infection have been laboratory-confirmed worldwide since the beginning of 2013. The countries affected during this period are Cambodia (28), Egypt (4), Indonesia (3), China (2), Vietnam (3), Bangladesh (1) Canada ex China (1). Among these cases, 27 were fatal, 15 of which are from Cambodia. The last

7/15

case of influenza A(H5N1) in China was reported in February 2013.

From 2003 through to 13 February 2014, 652 laboratory-confirmed human cases with avian influenza A(H5N1) virus infection have been officially reported from 16 countries. Of these cases, 387 have died.

Web sources: [ECDC Rapid Risk Assessment](#) | [Avian influenza on ECDC website](#) | [WHO update](#) | [Cambodia Ministry of Health](#) |

ECDC assessment

The risk of secondary cases and co-primary cases among the close contacts of the Canadian case reported is considered to be very low since more than 20 days have passed since the onset of disease, transmission of A(H5N1) on board aircrafts has never been documented, and there is no evidence of sustained human-to-human transmission of A(H5N1) ever occurring. The risk of healthcare-associated transmission in Canada is considered to be very low.

The evidence points to an isolated case who was infected following exposure in China, although the source and mode of transmission has not yet been established. A(H5N1) is a strain of avian influenza that occasionally crosses the species barrier and infects humans. Sporadic cases originating in areas where A(H5N1) transmission has been documented in the recent past are therefore not unexpected.

Although the case reported from Canada had an atypical clinical presentation and exposure to potentially infected birds has not been established, these circumstances do not change the ECDC recommendations that: Europeans travelling to China and South-East Asia should avoid live poultry markets and any contact with chickens, ducks, wild birds, and their droppings. This reduces the risk of exposure not only to A(H5N1) but also to A(H7N9). Poultry meat and eggs should be well cooked.

Hong Kong reported the world's first outbreak of bird flu among humans in 1997, when six people died. Most human infections are the result of direct contact with infected birds, and countries with large poultry populations in close contact with humans are considered to be most at risk of bird flu outbreaks. There are currently no indications of a significant change in the epidemiology associated with any clade or strain of the A(H5N1) virus from a human health perspective. This assessment is based on the absence of sustained human-to-human transmission, and on the observation that there is no apparent change in the size of clusters or reports of chains of infection. However, vigilance for avian influenza in domestic poultry and wild birds in Europe remains important.

Actions

ECDC follows the worldwide A(H5N1) situation through epidemic intelligence activities in order to identify significant changes in the epidemiology of the virus. ECDC re-assesses the potential of a changing risk for A(H5N1) to humans on a regular basis.

WHO is now reporting H5N1 cases on a monthly basis. ECDC will continue monthly reporting in the CDTR to coincide with WHO reporting.

Chikungunya outbreak - The Caribbean, 2013

Opening date: 9 December 2013

Latest update: 14 February 2014

Epidemiological summary

Cases reported as of 14 February 2014:

- Virgin Islands (UK), 6 confirmed cases;
- Saint Martin (FR), 653 confirmed cases;
- Sint Maarten (NL), 65 confirmed cases (5 most recent cases reported by [media](#) quoting the Ministry of Health);
- Martinique, 844 confirmed and probable cases;
- Saint Barthélemy, 270 confirmed and probable cases;
- Guadeloupe, 253 confirmed and probable cases;
- Dominica, 1 confirmed case (imported), 3 autochthonous cases (reported by media);
- French Guyana, 5 confirmed cases, all of which are imported;
- Anguilla, five confirmed cases on the island with one case probably originating from Saint Martin;

8/15

- Aruba, one imported case originating from Sint Maarten.

Web sources: [InVS](#)

ECDC assessment

Epidemiological data indicate that the outbreak, that started in Saint Martin (FR), is expanding. An increasing number of cases has been observed from most of the affected areas. The vector is endemic in the regions, where it also transmits dengue virus. Vigilance is recommended for the occurrence of imported cases of chikungunya in tourists returning to the EU from the Caribbean, including awareness among clinicians, travel clinics and blood safety authorities.

Actions

ECDC published a [rapid risk assessment](#) on 12 December 2013 and an [epidemiological update](#) on 10 January 2014 and [on 7 February](#).

The Caribbean islands



Zika virus infection outbreak - The Pacific - 2013-2014

Opening date: 9 January 2014

Latest update: 6 February 2014

Epidemiological summary

Two French overseas territories (French Polynesia and New Caledonia) are affected by outbreaks of Zika virus (ZIKAV) infection in the second documented outbreak of ZIKAV infection in the Pacific.

As of 7 February 2013, there are 8 262 suspected cases of ZIKAV infection in French Polynesia, of which 396 were confirmed by RT-PCR. It is estimated that more than 29 000 cases have sought medical care with Zika-like symptoms since the beginning of the outbreak in October 2013. Health authorities in the territory report a concurrent significant increase in neurological syndromes and autoimmune illnesses. There is a simultaneous dengue outbreak in the region. The cause of the complications and their possible links with ZIKAV or dengue virus infections are being investigated.

Since 1 January and as of 11 February 2014, there are 63 confirmed ZIKAV infections in New Caledonia, 31 of which are imported and 32 are autochthonous. No neurological complications have been reported to date in New Caledonia.

Public health control measures, including increased surveillance and the promotion of measures to avoid mosquito bites, have been implemented in both affected territories.

Web sources: [ECDC fact sheet](#) | [Bureau de Veille Sanitaire](#) | [NaTHNaC](#) | [DASS New Caledonia](#)

ECDC assessment

This is the second ZIKAV infection outbreak reported in the Pacific, now affecting two French overseas territories. The first documented transmission outside of the virus' traditional endemic areas in Africa and Asia occurred on the island of Yap in Micronesia in 2007.

ZIKAV is a member of the *Flaviviridae* family and is transmitted to humans by mosquitoes. It is related to other pathogenic vector-borne flaviviruses including dengue, West Nile and Japanese encephalitis viruses. ZIKAV infection is considered an emerging infectious disease with the potential to spread to new areas where the *Aedes* mosquito vector is present. There is a risk for the disease spreading further in the Pacific, and for sporadic imported cases in Europe from endemic areas. There is no available vaccine against ZIKAV infection. Travellers can protect themselves by preventing mosquito bites.

ZIKAV infection is a mild illness and has not been known to have neurological complications. The reported complications in French Polynesia are not confirmed to be caused by ZIKAV infections. However, there is a temporal association with the simultaneous outbreaks of ZIKAV and dengue. It is important to determine the cause of this increase and a possible association with the ongoing transmission of DENV-1, DENV-3 and ZIKAV.

Actions

ECDC has prepared a risk assessment on this event.

Middle East respiratory syndrome- coronavirus (MERS CoV) - Multistate

Opening date: 24 September 2012

Latest update: 13 February 2014

Epidemiological summary

As of 13 February 2014, 183 laboratory-confirmed cases of MERS-CoV have been reported by local health authorities worldwide, including 79 deaths. The following countries have reported MERS-CoV cases:

Saudi Arabia: 144 cases / 59 deaths
United Arab Emirates: 13 cases / 5 deaths
Qatar: 7 cases / 4 deaths
Jordan: 3 cases / 3 deaths
Oman: 2 case / 2 deaths
Kuwait: 2 cases / 0 deaths
UK: 4 cases / 3 deaths
Germany: 2 cases / 1 death
France: 2 cases / 1 death
Italy: 1 case / 0 deaths
Tunisia: 3 cases / 1 death

Twelve cases have been reported from outside the Middle East: in the UK (4), France (2), Tunisia (3), Germany (2) and Italy (1). In France, Tunisia and the UK, there has been local transmission among patients who had not been to the Middle East, but had been in close contact with laboratory-confirmed or probable cases. Person-to-person transmission has occurred both among close contacts and in healthcare facilities. However, with the exception of a possible nosocomial outbreak in Al-Ahsa, Saudi Arabia, secondary transmission has been limited. Twenty-two asymptomatic cases have been reported by Saudi Arabia and three by the United Arab Emirates.

The fourth meeting of the IHR Emergency Committee concerning MERS-CoV was held on 4 December 2013. The Committee concluded that there was no reason to change its previous advice to the Director-General. Their unanimous decision was that the conditions for a Public Health Emergency of International Concern (PHEIC) had not been met.

Based on events since its last meeting, the Committee emphasised the need for:

- investigative studies, including international case-control, serological, environmental, and animal-human interface studies, to better understand risk factors and the epidemiology;
- further review and strengthening of tools, such as standardised case definitions and surveillance, and further emphasis on infection control and prevention.

Web sources: [ECDC's latest rapid risk assessment](#) | [ECDC novel coronavirus webpage](#) | [WHO](#) | [WHO MERS updates](#) | [WHO travel health update](#) | [WHO Euro MERS updates](#) | [CDC MERS](#) | [Saudi Arabia MoH](#) | [Eurosurveillance article 26 September](#) | [Oman MoH](#) |

ECDC assessment

The source of MERS-CoV infection and the mode of transmission have not been identified, but the continued detection of cases in the Middle East indicates that there is an ongoing source of infection in the region. There is therefore a continued risk of cases presenting in Europe following exposure in the Middle East, and surveillance for MERS-CoV cases is essential.

The risk of secondary transmission in the EU remains low and could be reduced further through screening for exposure among patients presenting with respiratory symptoms and their contacts, and strict implementation of infection prevention and control measures for patients under investigation.

Actions

ECDC's latest [epidemiological update](#) was published on 25 November 2013.

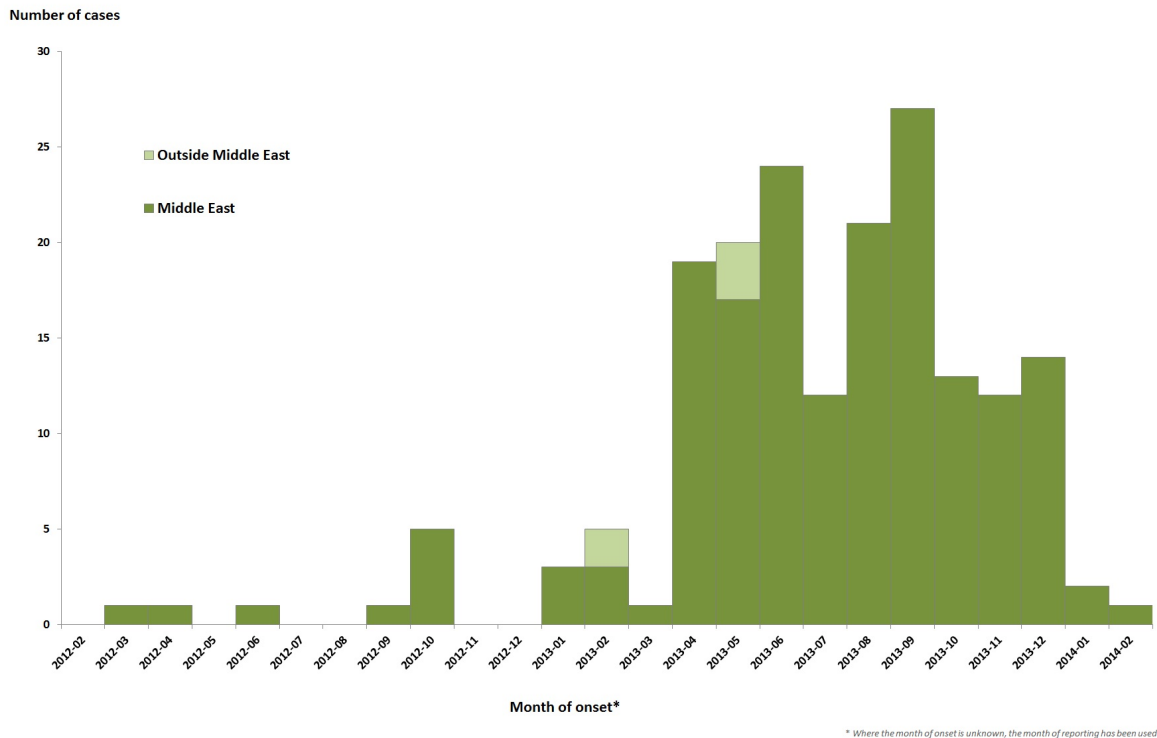
The latest update of a [rapid risk assessment](#) was published on 7 November 2013.

The first 133 cases are described in [Eurosurveillance](#) published on 26 September 2013.

ECDC is closely monitoring the situation, in collaboration with WHO and EU Member States.

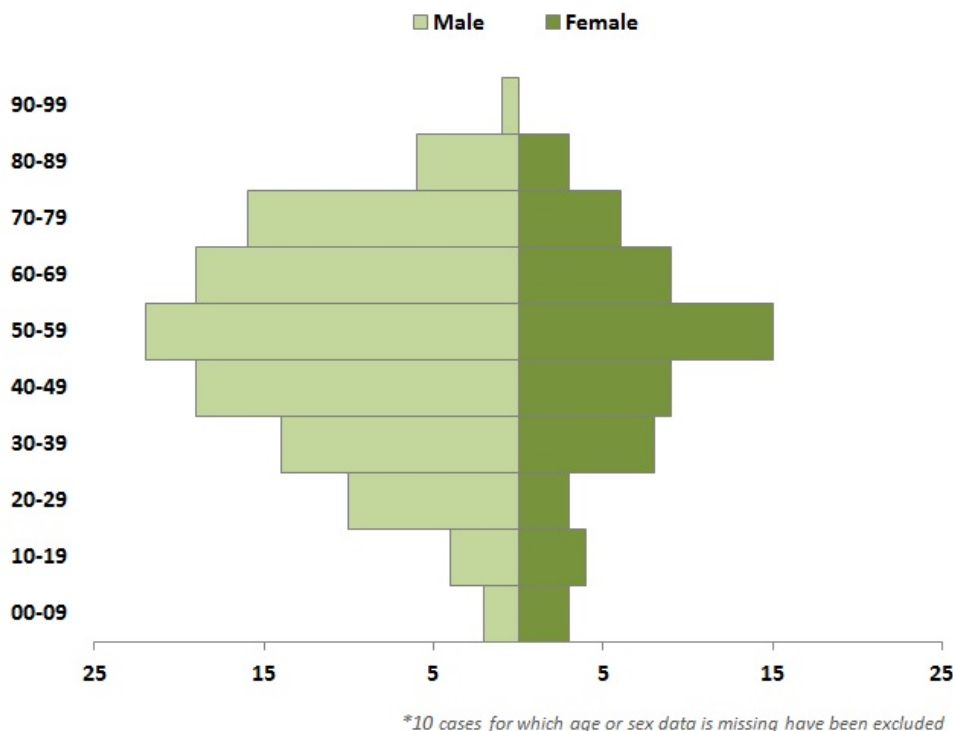
Distribution of confirmed cases of MERS-CoV by month of onset and place of probable infection, March 2012 - 13 February 2014 (n=183*)

ECDC SRS



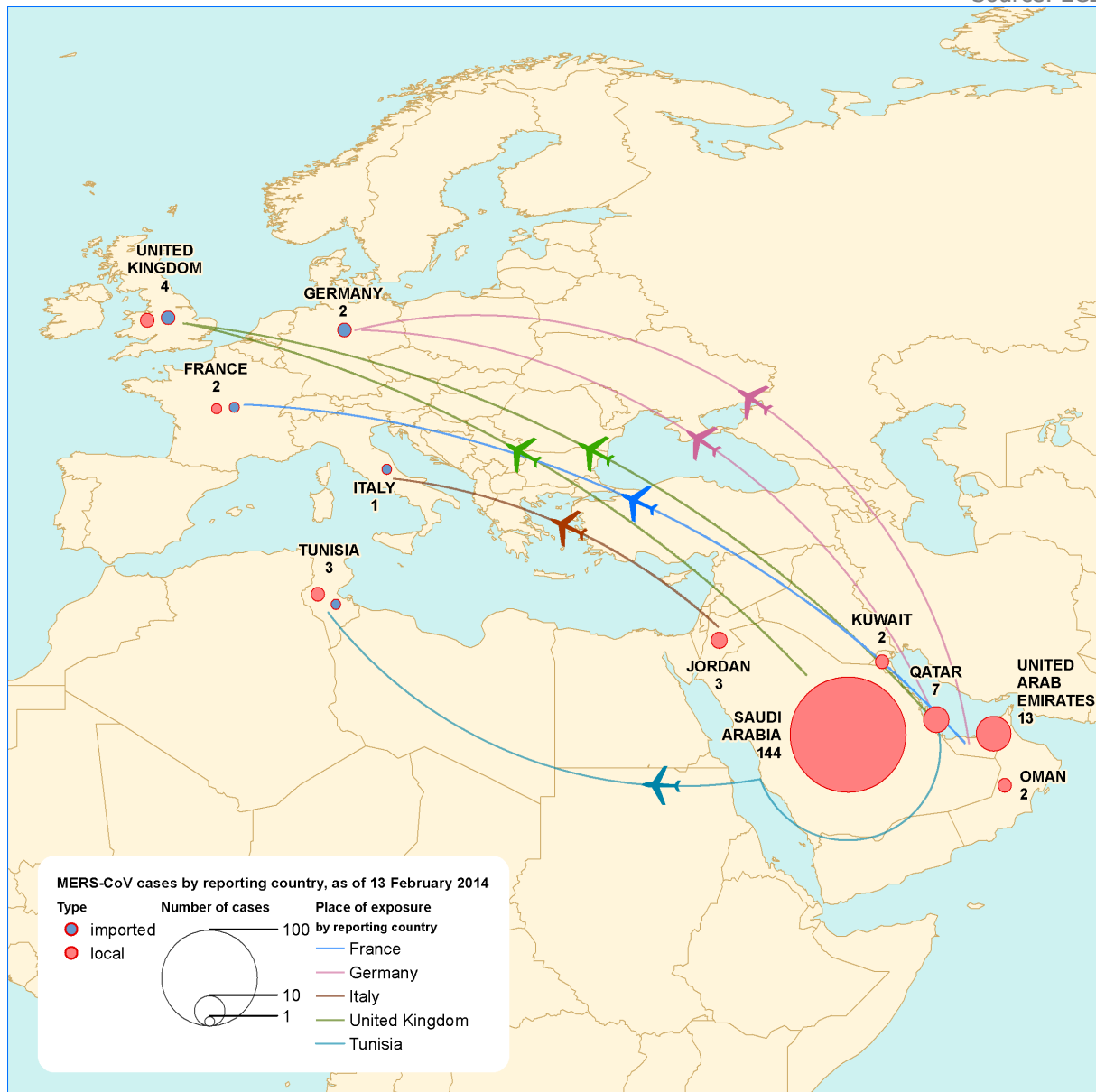
Distribution of confirmed cases of MERS-CoV by gender and age group, March 2012 - 13 February 2014

Source: ECDC SRS



Distribution of confirmed MERS-CoV cases by place of reporting, March 2012 - 13 February 2014

Source: ECDC SRS



Poliomyelitis - Multistate (world) - Monitoring global outbreaks

Opening date: 8 September 2005

Latest update: 13 February 2014

Epidemiological summary

This week, three new wild poliovirus 1 cases have been notified to WHO with disease onset in 2014: two cases from Pakistan and one case from Afghanistan.

In 2014, eleven cases have been recorded so far, from Pakistan (9) and Afghanistan (2). Pakistan remains the only country with areas of uncontrolled transmission of polio, particularly in parts of Federally Administered Tribal Areas (FATA) and Khyber Pakhtunkhwa.

Web sources: [Polio Eradication: weekly update](#) | [MedISys Poliomyelitis](#) | [ECDC Poliomyelitis factsheet](#)

ECDC assessment

Europe is polio free. The last polio cases within the current EU borders were reported from Bulgaria in 2001. This was an imported

13/15

outbreak and it was demonstrated that the WPV originated from India. An outbreak in the Netherlands, in a religious community opposed to vaccinations, caused two deaths and 71 cases of paralysis in 1992.

The last indigenous WPV case in the WHO European Region was in Turkey in 1998.

The latest outbreak in the WHO European Region was in Tajikistan in 2010, when importation of WPV1 from Pakistan resulted in 460 cases.

The recent detection of WPV in environmental samples in Israel, and the confirmed and ongoing outbreaks in Syria and Somalia, highlight the risk of re-importation into Europe. Recommendations are provided in the recent ECDC risk assessments:

[Rapid Risk Assessment on suspected polio cases in Syria and the risk to the EU/EEA](#)

[Wild-type poliovirus 1 transmission in Israel – what is the risk to the EU/EEA?](#)

Actions

ECDC follows reports of polio cases worldwide through epidemic intelligence, in order to highlight polio eradication efforts and identify events that increase the risk of re-introduction of wild poliovirus into the EU.

Due to the current situation of polio, the threat is being followed weekly.

The Communicable Disease Threat Report may include unconfirmed information which may later prove to be unsubstantiated.